

REMARKS

This Amendment is in response to a final Office Action mailed November 25, 2002. In the Office Action, pending claims 17-26, 28, 29, 37, 38 and 44-74 were rejected under the judicially created doctrine of obviousness-type double patenting. Claims 17, 24, 28, 48 and 49 were rejected under 35 U.S.C. §112. Claims 17-18, 20-26, 28-29, 37, 44-45, 48-49, 51-52, 55-57, 59, 61-65 and 67 were rejected under 35 U.S.C. §102(b) while claims 17-26, 28, 29, 37, 38 and 44-74 were rejected under 35 U.S.C. §103(a). Applicants respectfully traverse these statutory rejections.

I. DOUBLE PATENTING REJECTION

Claims 17-26, 28, 29, 37, 38 and 44-74 were rejected under the judicially created doctrine of obviousness-type double patenting associated with claims 1-16 of U.S. Patent No. 6,058,429. Applicants respectfully submit a terminal disclaimer to overcome the obviousness-type double patenting rejection along with the prescribed fee set forth in 37 C.F.R. § 1.20(d). Applicants respectfully request that the obviousness-type double patenting rejection be withdrawn.

II. §112 REJECTION

Claims 17, 24, 28, 48 and 49 were rejected under 35 U.S.C. §112, first paragraph. With respect to claims 48 and 49, a misconception was created based on a typographical error. The dependent claim is not a contradiction between non-usage and usage of a routing function. Rather, it merely defines that the lack of use of a routing function involves the lack of use of a routing protocol. More specifically, these claims further define what constitutes a “routing function” (e.g., routing protocol). In light of the foregoing, withdrawal of the §112 rejection against claims 48 and 49 is respectfully requested.

With respect to claims 17, 24 and 28, the Examiner has requested further explanation as to “how the invention routes without a routing function.” Applicants respectfully submit that claim 24 does not include this limitation, and thus, should not have been rejected under 37 C.F.R. §112, first paragraph. Acknowledgement of the inapplicability of the rejection toward claim 24 is respectfully requested.

Applicants respectfully submit that it is important to recognize that the claimed invention involves a switch that is configured with a mechanism that allows “layer three” (L3 of the OSI model) information to be used for *transferring* information without the use of a router or its associated routing protocol. (Emphasis added). As the Examiner is aware, typical switches operate based on “layer two” (L2 of the OSI model) addresses. Routers, however, not only identify the protocol of an incoming packet and the destination of the packet predetermined based on L3 information, but also perform operations in accordance with a routing protocol on each incoming packet in order to determine the most cost-effective path for data of the incoming packet. For instance, a router operating in accordance with Open Shortest Path First (OSPF) routing protocol generates link state routing data and obtains link state routing data from other nodes in the network in order to calculate the best path from a source device to a destination device. Thus, prior to the claimed invention, it is Applicants’ contention that switches did not rely on L3 information to determine where to transfer information.

Bryant describes a border node that includes a network node interface having *routing* capability. (Emphasis added). This border node constitutes a border router because each node “may act as an intermediate node in a communication session, *routing* sessions between other network nodes.” *See column. 1, lines 39-41 of Bryant.* In contrast, the claimed *switch* does not use or participate in any routing protocols to calculate where data needs to be transferred. (Emphasis added). Instead, as set forth in the specification of the subject application, the switch monitors router control messages, such as ARP messages for example, to populate tables with the switch. It is appreciated, of course, that ARP messages described in the specification of the

subject application are merely one type of router control message that can be used. Such monitoring enables the switch to perform transfers of information using L3 information in lieu of normal L2 information.

In light of the foregoing, Applicants respectfully submit that this outstanding §112 rejection be withdrawn.

II. REJECTION UNDER 35 U.S.C. § 102(b)

Claims 17-18, 20-26, 28-29, 37, 44-45, 48-49, 51-52, 55-57, 59, 61-65 and 67 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,241,682 issued to Bryant, et al. (Bryant). In order to anticipate a claim under §102(e), Bryant must teach every element of the claim. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants respectfully traverse the rejection.

In general, Bryant teaches a border node including a network node (NN) interface having routing and functional capability over a first data processing network and an endpoint node (EN) interface having local address capability. A border node is not a switch. Instead, a border node of Bryant is any computer or workstation of sufficient sophistication to meet the system requirements for a network node. *See Column 4, lines 43-49 of Bryant*. In fact, on paragraph 7 of the page 3 of the Office Action, the Examiner states that the border node is used as a router.

With respect to independent claim 24, a prima facie case of anticipation has not been met because Bryant does not describe a *switch* that comprises a mechanism that analyzes information transferred from a source device of a first network to a destination device of a second network and stores information identifying each of the following: a *port* coupled to the second network, a layer two (*L2*) *address* of the destination device and a layer three (*L3*) *address* of the destination

device corresponding to the L2 address, and using the information to forward data between the plurality of networks. (Emphasis added).

In addition, with respect to independent claims 17, 28 and 37, a prima facie case of anticipation has not been met because Bryant does not describe either (1) determining the L2 address associated with the L3 address of the destination device through access of one or more data structures within the *switch*, or (2) a *switch* with a mechanism that determines, using L3 information contained in the packet received by a port of a plurality of ports, which one of the plurality of ports is coupled to a destination device and transfers information contained in the packet to the destination device without use of a routing function. These limitations are generally included in claims 37 and 17/28, respectively. While the Examiner relies on the teachings that the border node of Bryant provides topological isolation provided between the networks (column 3, lines 11-15 of Bryant), such teachings do not convey that the node transfers information without use of a routing function (or protocol).

Applicants respectfully traverse the remaining §102(b) rejections for those claims depending on claims 17, 24, 28 and 37. However, further discussion is moot in light of the allowable nature of the independent claims.

In light of the foregoing, Applicants respectfully request the Examiner to withdraw the outstanding §102(b) rejection. If further discussion would facilitate prosecution of the subject case, the Examiner is respectfully invited to contact the undersigned attorney at the phone number listed below.

III. REJECTION UNDER 35 U.S.C. § 103(a)

Claims 17-26, 28, 29, 37, 38 and 44-74 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bryant in view of U.S. Patent No. 5,636,371 issued to Yu.

With respect to independent claim 24, a *prima facie* case of obviousness has not been met because neither Bryant nor Yu, alone or in combination, suggest a *switch* that comprises a mechanism that analyzes information transferred from a source device of a first network, such as a virtual local area network (VLAN1) to a destination device of a second network (e.g., VLAN2) and stores information identifying each of the following: a *port* coupled to the second network, a layer two (*L2*) *address* of the destination device and a layer three (*L3*) *address* of the destination device corresponding to the L2 address, and using the information to forward data between the plurality of networks. (Emphasis added).

With respect to independent claims 17, 28 and 37, a *prima facie* case of obviousness has not been met because neither Bryant nor Yu, alone or in combination, suggests a determination of the L2 address associated with the L3 address of the destination device through access of one or more data structures *within the switch*. Moreover, neither of these references suggests a *switch with a mechanism that (i) determines, using L3 information contained in the packet received by a port of a plurality of ports, which one of the plurality of ports is coupled to a destination device and that (ii) transfers of information contained in the packet to the destination device without use of a routing function*. (Emphasis added). Instead, Bryant focuses on a border node and the operations associated with the border node to act as an end node or a border router. There is no suggestion for intelligent switch functionality as claimed.

Applicants respectfully traverse the remaining §103(a) rejections for those claims depending on claims 17, 24, 28 and 37. However, further discussion is moot because Applicants believe, and respectfully request, that claims 17-26, 28, 29, 37, 38 and 44-74 be placed in condition for allowance since the §103(a) rejection has been traversed.

CONCLUSION

In view of the amendments and remarks made above, it is respectfully submitted that all pending claims are in condition for allowance, and such action is respectfully solicited.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on: June 6, 2003.



Corrinn R. Reynolds 6/6/03
Date